



Heather Shirley Smith
Deputy General Counsel

Duke Energy
40 W. Broad Street
Suite 690
Greenville, SC 29601

o: 864.370.5045
f: 864.370.5183

heather.smith@duke-energy.com

October 26, 2020

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk and Executive Director
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, SC 29210

Re: Joint Petition of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC to Establish a Consolidated Informational Docket for Review and Consideration of Grid Improvement Plans (NDI Opened Pursuant to Commission Order No. 2020-533) Docket No. ND-2020-28-E

Dear Ms. Boyd:

On August 12, 2020, by Order 2020-533 in Docket No. 2019-381-E, the Commission approved Duke Energy Carolinas, LLC's ("DEC") and Duke Energy Progress, LLC's ("DEP") (collectively, the "Companies") joint request to establish an informational docket for review and consideration of its Grid Improvement Plan ("GIP"). As a result of that order, on August 14, 2020, the Commission opened the above-referenced NDI docket.

On September 12, 2020, the Companies filed key GIP documents in this docket to provide any interested parties with background on the GIP.

The Companies hereby provide an update on progress on the GIP for the calendar year 2019. The attached 2019 GIP Status Report for DEC and DEP shows how the Companies are performing in terms of program costs and units as compared to its targets. The Companies plan to provide the 2020 GIP status report to the Commission and stakeholders in the first half of 2021. The Companies are planning another stakeholder meeting to occur by the end of the year to share and discuss the 2019 results being filed today.

The Companies are proud of the progress made to date. Investments in Self-Optimizing Grid and Targeted Undergrounding have already prevented thousands of outages for customers in South Carolina. DEC avoided 880,000 customer minutes of interruption in 2019 due to the operation of its self-healing networks. DEP avoided 1.3 million customer minutes of interruption in 2019 due to the operation of its self-healing networks. DEC completed substantial work on its Targeted Undergrounding program and avoided 55,000 customer minutes of interruption through such work. Work has now begun for the Targeted Undergrounding program for DEP, and it is off

to a good start with avoided 664 customer minutes of interruption with substantial additional benefits to come as the work is executed.

Additionally, the Companies provide certification that the bill insert previously ordered by the Commission has been provided to customers. The Companies will continue to inform stakeholders, the ORS and the Commission on developments in the Companies' GIPs.

Sincerely,



Heather Shirley Smith

Attachments

cc via email w/ enclosure:

Counsel for Office of Regulatory Staff
Department of Consumer Affairs
Counsel for Sierra Club
Counsel for Walmart, Inc.
Counsel for SELC on behalf of SC NAACP, SCCCL & Upstate Forever
Counsel for Nucor Steel-South Carolina
Counsel for SCSBA and Cypress Creek Renewables
Counsel for SCEUC
Counsel for Vote Solar
Counsel for CMC Recycling
Hasala Dharmawardena

South Carolina Grid Improvement Plan
Duke Energy Carolinas
Capital Expenditures 2019

No	Program	Subcategory	Target	Units	Actuals	Units	Variance	Units	Program Notes
1	Self Optimizing Grid		19,566,000		15,013,296		(4,552,704)		
		Segmentation and Automation	6,444,000	100	4,272,999	93	(2,171,001)	(7)	Current work completed at less than anticipated cost.
		Modular Distrib Control Device POC	21,000	-	587	-	(20,413)	-	Program anticipated to start in 2020/2021.
		Capacity & Connectivity	4,135,000	11.0	3,370,875	10.9	(764,125)	(0)	Current work completed at less than anticipated cost.
		Substation Bank Capacity	6,376,000	-	4,412,162	-	(1,963,838)	-	Less substation capacity work required to support 2019 self-optimizing grid work.
		Advanced DMS	2,590,000	-	2,956,674	-	366,674	-	Program is executing as anticipated.
2	Distribution Hardening & Resiliency - Flood		-		-		-	-	
3	Distribution Transformer Retrofit		-	-	-	-	-	-	
4	Integrated Volt/Var Control		-		-		-	-	
5	Transmission Hardening & Resiliency		4,780,000		4,175,662		(604,338)	-	Program is executing as anticipated.
6	Transmission Bank Replacement		-		-		-	-	
7	Transmission System Intelligence		1,347,500		1,233,638		(113,862)	-	Program is executing as anticipated.
8	Oil Breaker Replacement		1,540,000		1,278,728		(261,272)	-	Program is executing as anticipated.
9	Targeted Undergrounding		5,390,000	11.0	6,951,419	7.0	1,561,419	(4.0)	Unit cost is greater than estimated, resulting in fewer miles being executed.
10	Long Duration Interruptions		5,267,000		4,172,122		(1,094,878)	-	Projects started later than anticipated to allow for additional design.
11	Enterprise Communications		5,232,439		10,176,593		4,944,154	-	
		Next Generation Cellular	516,781	596	542,671	556	25,890	(40)	Project is executing as anticipated.
		Mission Critical Voice	250,091	-	251,052	-	961	-	Project is executing as anticipated.
		Proof of Concept	-	-	-	-	-	-	
		BizWAN	-	-	-	-	-	-	
		GridWAN	489,116	12	852,374	27	363,258	15	Project is executing ahead of schedule.
		Mission Critical Transport	1,393,982	7	6,044,615	24	4,650,633	17	Project is executing ahead of schedule.
		Towers Shelters Power Support	1,452,964	3	1,800,565	4	347,601	1	Project is executing ahead of schedule.

ELECTRONICALLY FILED - 2020 October 20 3:09 PM - SCPSC - Docket # 2022-388-E Page 3 of 7

South Carolina Grid Improvement Plan
Duke Energy Carolinas
Capital Expenditures 2019

No	Program	Subcategory	Target	Units	Actuals	Units	Variance	Units	Program Notes
		Network Asset System Tools	-	-	-	-	-	-	
		Vehicle Area Network	1,129,505	2,658	685,316	806	(444,189)	(1,852)	Fewer units required to complete work.
12	Distribution Automation		3,957,000		4,580,942		623,942	-	
		Hydraulic to Electric Recloser	2,772,000	42	385,756	8	(2,386,244)	(34)	Program is behind schedule due to resource constraints.
		System Intelligence & Monitoring	415,000	-	-	-	(415,000)	-	Program start delayed for additional planning and design.
		Fuse Replacement w/ Reclosers	-	-	-	-	-	-	
		Underground System Automation	770,000	-	4,195,186	-	3,425,186	-	Additional capacity work required to complete work.
13	Enterprise Applications		1,575,000		1,400,104		(174,896)	-	Program is executing as anticipated.
14	Integrated System Operations Planning		1,073,000		343,812		(729,188)	-	Program start delayed for additional planning and design.
15	DER Dispatch Enterprise Tool		616,000		-		(616,000)	-	Program start delayed for additional planning and design.
16	Power Electronics for Volt/Var		-		-		-	-	
17	Physical and Cyber Security - Transmission		15,395,000		19,802,447		4,407,447	-	Program is executing ahead of schedule.
18	Physical and Cyber Security - Distribution		2,915,551	54	522,214	-	(2,393,337)	(54)	
		Device Entry Alert System	151,560		707	-	(150,853)	-	Program start delayed for additional planning and design.
		Secure Access Device Management	630,966		499,712	-	(131,254)	-	Project is executing behind schedule to allow for additional planning and design.
		Line Device Protection	2,133,025	54	21,795	-	(2,111,230)	(54)	Project start delayed for additional planning.
Distribution Total			45,591,990		43,160,501		(2,431,489)		
Transmission Total			23,062,500		26,490,476		3,427,976		
Total Grid Improvement Plan			68,654,490		69,650,977		996,487		

Notes:

1. Communications: Mission Critical Transport installed 10 miles of fiber and 14 microwave sites; Tower Shelter Power Supplies installed 16 power supply sites in addition to the 4 reported tower sites; and Vehicle Area Network Plan units are incorrectly overstated and should have been 840 inclusive of both vehicles and trailers.
2. The GIP deferral does not include Energy Storage and Electric Vehicle scope that was included in the original Grid Improvement Plan.

ELECTRONICALLY FILED - 2020 October 26 3:09 PM - SCSPSC - Docket # 2022-388-E Page 4 of 7

South Carolina Grid Improvement Plan
Duke Energy Progress
Capital Expenditures 2019

No	Program	Subcategory	Target	Units	Actuals	Units	Variance	Units	Program Notes
1	Self Optimizing Grid		5,889,307		7,171,252		1,281,945		
		Segmentation and Automation	1,970,307	39	1,657,288	39	(313,019)	-	Current work completed at less than anticipated cost.
		Modular Distrib Control Device POC	-	-	-	-	-	-	
		Capacity & Connectivity	1,235,000	6.0	3,158,113	11.8	1,923,113	6	Program is executing ahead of schedule.
		Substation Bank Capacity	1,904,000	-	-	-	(1,904,000)	-	Less substation capacity work required to support 2019 self-optimizing grid work.
		Advanced DMS	780,000	-	2,355,851	-	1,575,851	-	Program is executing ahead of schedule.
2	Distribution Hardening & Resiliency - Flood		-	-	-		-	-	
3	Distribution Transformer Retrofit		3,600,000	3,000	3,283,046	3,968	(316,954)	968	Current work completed at less than anticipated cost.
4	Integrated Volt/Var Control (DSDR)		-	-	-		-	-	
5	Transmission Hardening & Resiliency		550,000	-	30,774	-	(519,226)	-	Program reclassified some transmission projects from Hardening to System Intelligence.
6	Transmission Bank Replacement		-	-	-		-	-	
7	Transmission System Intelligence		-	-	190,545	-	190,545	-	Program reclassified some transmission projects from Hardening to System Intelligence.
8	Oil Breaker Replacement		-	-	730,911	-	730,911	-	Program is executing ahead of schedule.
9	Targeted Undergrounding		1,610,000	4.0	1,525,137	1.3	(84,863)	(3)	Unit cost is greater than estimated, resulting in fewer miles being executed.
10	Long Duration Interruptions		1,573,000	-	2,465,546	-	892,546	-	Program costs are greater than anticipated.
11	Enterprise Communications		2,550,000	-	3,049,650	-	499,650	-	
		Next Generation Cellular	65,000	127	200,862	221	135,862	94	Project is executing ahead of schedule. Program costs are greater than anticipated.
		Mission Critical Voice	53,000	-	405,680	-	352,680	-	Project executing ahead of schedule.
		Proof of Concept	-	-	-	-	-	-	
		BizWAN	-	-	-	-	-	-	
		GridWAN	716,000	3	692,554	19	(23,446)	16	Project executing ahead of schedule. Current work completed at less than anticipated cost.
		Mission Critical Transport	304,000	1	1,120,631	15	816,631	14	Project executing ahead of schedule.
		Towers Shelters Power Support	1,179,000	1	435,402	-	(743,598)	(1)	Project executing behind of schedule due to construction delays.
		Network Asset System Tools	-	-	-	-	-	-	

South Carolina Grid Improvement Plan
Duke Energy Progress
Capital Expenditures 2019

No	Program	Subcategory	Target	Units	Actuals	Units	Variance	Units	Program Notes
		Vehicle Area Network	233,000	551	194,520	240	(38,480)	(311)	Project is executing as anticipated with less work than anticipated.
12	Distribution Automation		1,139,000		494,374		(644,626)	-	
		Hydraulic to Electric Recloser	828,000	13	494,374	13	(333,626)	-	Program is executing as anticipated. Program costs are less than anticipated cost.
		System Intelligence & Monitoring	81,000	-	-	-	(81,000)	-	Program start delayed for additional planning and design.
		Fuse Replacement w/ Reclosers	-	-	-	-	-	-	
		Underground System Automation	230,000	-	-	-	(230,000)	-	Program work removed from plan.
13	Enterprise Applications		436,000	-	406,302	-	(29,698)	-	Program is executing as anticipated.
14	Integrated System Operations Planning		321,000	-	95,300	-	(225,700)	-	Program start delayed for additional planning and design.
15	DER Dispatch Enterprise Tool		184,000	-	-	-	(184,000)	-	Program start delayed for additional planning and design.
16	Power Electronics for Volt/Var		76,000	-	-	-	(76,000)	-	Program start delayed for additional planning and design.
17	Physical and Cyber Security - Transmission		3,105,000	-	779,006	-	(2,325,994)	-	Program start delayed for additional planning and design.
18	Physical and Cyber Security - Distribution		910,044		336,747	-	(573,297)	-	
		Device Entry Alert System	54,573		198	-	(54,375)	-	Program start delayed for additional planning and design.
		Secure Access Device Management	218,334		128,535	-	(89,799)	-	Project is executing behind schedule to allow for additional planning and design.
		Line Device Protection	637,137	160	208,014	51	(429,123)	(109)	Project start delayed for additional planning.
Distribution Total			18,288,351		18,827,354		539,003		
Transmission Total			3,655,000		1,731,237		(1,923,763)		
Total Grid Improvement Plan			21,943,351		20,558,591		(1,384,760)		

Notes:

- Costs associated with DSDR in these programs will be recovered through the DSDR rider and not the GIP deferral. Total program spend and units are included for complete program status reporting against targets.
- Communications: Next Generation Cellular installed 221 units, 195 were related to DSDR; GridWan installed 19 units, 17 were related to DSDR; Mission Critical Transport installed 13 miles of fiber and 2 microwave sites; Tower Shelter Power Supplies installed 1 power supply site; and Vehicle Area Network Plan units are incorrectly overstated and should have been 240 inclusive of both vehicles and trailers.
- Hydraulic to Electronic Recloser: A correcting entry for \$392,917 was booked in 2020 for costs incurred in 2019.
- The GIP deferral does not include Energy Storage and Electric Vehicle scope that was included in the original Grid Improvement Plan.

**BEFORE THE
PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA**

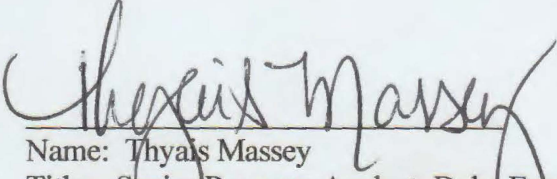
DOCKET NO. ND-2020-28-E

In re:

Joint Petition of Duke Energy Carolinas, LLC
and Duke Energy Progress, LLC to Establish a
Consolidated Informational Docket for Review
and Consideration of Grid Improvement Plans
(NDI Opened Pursuant to Commission Order
No. 2020-533)

CERTIFICATION

I, Thyais Massey, state and certify, that I am a Senior Revenue Analyst for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC; that under my direction and supervision, between the dates of September 11, 2020 and October 11, 2020, the Notice of Consolidated Informational Docket for Review and Consideration of Grid Improvement Plans ND-2020-28-E attached hereto as Exhibit A was furnished either by U.S. mail, or by electronic mail to customers who have agreed to receive notice by electronic mail, to all affected customers of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC. I certify that the foregoing statement made by me is true. I am aware that if the foregoing statement made by me is willfully false, I am subject to punishment by contempt.


Name: Thyais Massey
Title: Senior Revenue Analyst, Duke Energy
Carolinas, LLC and Duke Energy Progress,
LLC